

**SAS Superstructure**

Location: 04-SF-80-13.2 / 13.9

Client Name: CalTrans

Run date 21-Nov-14

Time 10:43 PM

Daily Diary Report by Bid Item

Contract No.: 04-0120F4

Diary #: 464 Const Calendar Day: 37 Date: 11-Jul-2012 Wednesday

Inspector Name: Brignano, Bob Title: Transportation Engineer

Inspection Type:

Shift Hours: Break: Over Time:

Federal ID:

Location:

Reviewer: Schmitt, Alex Approved Date: Status: Submit

**04-0120F4
04-SF-80-13.2/13.9
Self-Anchored
Suspension Bridge****Weather**

Temperature 7 AM 12 PM 4PM

Precipitation Condition overcast am, clear pm

Working Day ☒ If no, explain:**Diary:**

Dispute

General Comments

ITEM 69 ERECT SUSPENDER SYSTEM;
ITEM 60 ERECT STRUCTURAL STEEL (BRIDGE)(SADDLE);
BOLTIGHT LOAD VERIFICATION TESTING:

The Boltight load verification takes place in the Pier 7 warehouse at the east end. See Tai-Lin Liu diary for details. From Translab, Erin McCroy is present with loadcells. One ABF ironworker, Ricky Damboise, is present to handle the Boltight equipment. Note that ABF ironworker Steve Johnson is also present for a short time period (approximately 0945 to 1000) during the testing. One ABF engineer, Andre Markarian, is present for portions of the testing. Other ABF engineers are present at various times during the day, mainly at the adjacent area where the suspender painting test is located, stopping by at the Boltight testing to examine the work for short periods of time.

The test setup for the 2" cable band bolts includes use of cable band bolts and nuts (both ABF spares and CT left over QA samples not destructively tested), CT Translab load cells (2 each), CT Translab P3500 gages (2 each), and CT shim plates. ABF ironworkers swap out the Boltight equipment for each test and operate the hydraulic pump during the tests. Note that a washer under the nut is not used and is not necessary to check the accuracy of the tensioner pulling on the threaded end of the bolt.

The test setup for the 1-1/2" and 1-3/4" tie rods at the WJS and WDS includes the use of a spare tie rod of each diameter, CT Translab load cells (2 each stacked, but only one used during the test), CT Translab P3500 gages (2 each, connected to the 2 load cells, but only one used for testing purposes), CT shim plates with machined spacers/inserts for the different diameters, and ABF shim plates. These tie rods are long, so the 2 test setups for the shorter 2" cable band bolts are stacked with machined spacers/inserts for the different diameters. The CT shim plates are not enough for the length, so ABF also provides some shim plates. Note that a washer under the nut is not used and is not necessary to check the accuracy of the tensioner pulling on the threaded end of the bolt. The Boltight tensioner for the 1-1/2" and 1-3/4" tie rods is the same hydraulic unit, so calibration/verification testing is only needed for one rod covering the range of forces for both rods, but we request tests with each of the diameter rods so that seating loss can be checked for the different materials.

The recently arrived shipment of new Boltight equipment has 34 Boltight jacks and bridges for 2" cable band bolts, and one jack with 2 different bridges and threaded inserts for 1-1/2" and 1-3/4" tie rods. The shipment also includes other Boltight equipment, like pumps, hoses, and Tommy Bars. Yesterday's Boltight load verification was for the first 23 of 34 Boltight jacks for 2" cable band bolts. Today's Boltight load verification for the 2" cable band bolts is for the last 11 of 34 Boltight jacks. Note that the testing is to verify the accuracy of the jack portion, with the puller, so all the different bridges (for turning the nut during



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tightening) are not tested - since there are 2 calibration/verification setups with load cells, only 2 bridges are used over the nut. Today's Boltight load verification for the 1-1/2" and 1-3/4" tie rods involves 2 tests, including seating loss tests, with the same jack used for the tests with the 1-1/2" and 1-3/4" tie rods, but different threaded inserts for attaching to the threaded ends of the different size tie rods and different bridges for turning the different size nuts for the different size tie rods.

See the attachment with the tracking sheets from the load verification with the forces and pressures for each step. Seating loss for tightening the nut is performed on 2 of the 11 Boltight load verification tests for 2" cable band bolts. Seating loss for tightening the nut is performed on both of the tests performed on the tie rods - 1-1/2" and 1-3/4" tie rods.

ITEM 60 ERECT STRUCTURAL STEEL (BRIDGE)(SADDLE);
TOWER SADDLE TIE ROD INSTALLATION:

In preparation for the upcoming installation of the tower saddle 4" diameter tie rods at the tower saddle, the tie rods, nuts, and washers are moved today from inside the Pier 7 warehouse to a barge. Then the barge is taken to the site, and the Favco crane unloads the barge and puts the material on the OBG deck today. Tie rod installation at the tower saddle does not start today.